

2170311	DATA SHEET	
valid from: 01.01.2019	UNITRONIC® BUS ASI FD P FRNC	

Application

UNITRONIC® BUS ASI FD P FRNC is a two-core and flat actuator/sensor bus cable for the AS-INTERFACE (actuator-sensor-interface) networking system for the lower field area. The cable is particularly suitable for applications with high mechanical stress and which require a high oil resistance. It is suitable for power chains, halogen free and flame retardant. It is acc. to the UL-AWM-Styles 10493 and 20549. Data transmission for AS-INTERFACE telegrams and power supply for AS-I slaves, master, repeater, extender and sensors is done via this unscreened, geometrically-coded two-core flat cable. The contacting of the conductors by the insulation displacement-system of the AS-I modules is possible without stripping the insulation. The cable is designed for indoor applications. Restriction of use acc. to UL-Style: 20549: Internal wiring of electronic equipment.

Design

Conductor	tinned copper, ca. 1,5 mm ² , super-fine-wire stranded, acc. To IEC 60228 (class 6)
Insulation	halogen free compound, core \varnothing ca. 2.5 mm
Core identification code	colors of the cores: brown (+), blue (-)
Stranding	2 cores parallel deviation, brown core assembled in line with leading edge
Outer sheath	halogen free, flame retardant PUR compound dimensions and tolerances acc. to ASI specification sheath colors: art.no. 2170311: yellow (RAL 1012) art.no. 2170312: black (RAL 9005)

Electrical properties at 20°C

Conductor resistance	max. 13,7 Ω /km
Specific volume resistivity	min. 1 M Ω xkm
Mutual capacitance	max. 80 nF/km
Inductance	0,5 mH/km to 0,75 mH/km
Characteristic impedance	167 kHz: 70 Ω to 140 Ω
Rated voltage	ca. 30 V
Test voltage	2000 V

Mechanical and thermal properties

Minimum bending radius	fixed installation: 12 mm moved without forcible control: 24 mm moved with forcible control: 60 mm
Temperature range	fixed installation: -40 °C up to +80 °C moved without forcible control: -30 °C up to +80 °C moved with forcible control: -30 °C up to +70 °C
Flammability	flame retardant acc. to IEC 60332-1-2 and FT2 acc. to UL
Halogen free	halogen free acc. to IEC 60754-1
Oil resistance	oil resistant acc. to EN 50363-10-2
General requirements	This cable is conform to the EU-Directive 2011/65/EU (RoHS, Restriction of the use of certain hazardous substances).

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